# FARM AND GARDEN.

### Some Hints on Buying Horses.

Don't buy a horse of a man who prides himself on being a horse jockey; he will cheat you every time, either by not telling you the whole truth, or by allowing you to believe what is not true about the horse. A horseman may be scrupulously honest and reliable in everything else, but tricky in a horse trade. In buying a horse, do not be smart and put your judgment against the honor and integrity of the man who is selling the horse, or he will allow you to "cut your eye teeth." Never buy a horse in harness; unhitch him and take everything off but his halter, and lead him around. If he has stiff knees or shoulders, or has other ailments, you may be able to discover them. Turn him loose and get behind him, and chase him for a few minutes to see his movements. The horse may be blind and his eyes apparently all right; one eye may be sound and the other one not. Take the horse by the head and back him; if he drags his toes, you may depend upon it his shoulders are unsound. Stand beside the horse and notice if his knees are sprung forward; they should be in a straight line. Notice if the horse stands firmly and squarely on every foot and does not change his weight from one foot to the other, which you may know indicates soreness somewhere. To know if a horse's wind is good, give him a run of ten minutes, and then watch the result. If a horse stands with his feet wide apart or straddles his feet in moving, especially while pulling, there is a fault in the loins or kidneys. Examine the hoofs carefully with the hand. The feet should be cool and all alike. The frog should be as near like India rubber as possible, not dry and brittle. If the ears are continually thrown back and eyes unkindly, the eyes wide apart and the face dished, the chances are the horse is very smart and very mean. If the horse has a thin, narrow face, with eyes close together, the horse is a natural-born fool, suspicious, ready to scare to death at nothing and to do all sorts of fool things. You don't want such a horse for anything. Watch out for scarred hind legs, as the horse is probably a kicker. A stumbling horse will probably have scarred knees. A rough, harsh skin that sticks to the body like the bark of a tree indicates stomach troubles; he is a hearty eater and has fits of indigestion. To know surely if the breathing organs are right, put your ear at the region of the heart and lungs and you can tell. The breathing should be clear and with no wheezing sounds. With all this there is no man living that will not be deceived sometimes.—*Stockman.*

### Ashes as a Fertilizer.

Next to stable manure, wood ashes come nearest to meeting the farmers' wants. Most lands are benefited by the application of wood ashes. While valuable chiefly for their potash, this is by no means their only merit. Professor Atwater, excellent authority, says:

"Ashes contain all of the food ingredients that the plants require from the soil, except one—nitrogen. By their chemical action they render the inert nitrogen of the soil available to the crops. They also help to set free potash and other mineral ingredients of plant food that are locked up in soluble combinations in the soil. They improve the mechanical condition of the soil. They make heavy soils lighter and counteract the ill effects of drought. Thus, by virtue of what they themselves contain and what they enable soils to furnish, they constitute a practically complete fertilizer. Hence, like stable and yard manure, they are fitted for all soils and all crops. And, finally, they are generally applied in large quantities, are exposed to scarcely any waste until they are used by the plants, and therefore their effect is as lasting as it is valuable.

In many localities the high cost of wood ashes prevents their use. To meet this obstacle, Davis, in his book on "Improving the Farm," gives a formula for artificial ashes which, while it may not analyze precisely like ashes, has on repeated trial given practically the same results. For one ton: 500 pounds ground bone, 14 per cent phosphoric acid; 300 pounds superphosphate, 13 per cent phosphoric acid; 400 pounds muriate potash, 80 per cent; 200 pounds sulphate magnesia, crude, 55 per cent; 600 pounds gypsum or land plaster.

The formula can be varied. For use on grass as a permanent manure the dissolved bone can be omitted by using more of the bone dust. The chief advantage of using the superphosphate is that it gives a quicker action and makes the fertilizer do better work when first applied. And in those localities and on those soils where plaster produces no good results this may be substituted by a good loam. It should be thoroughly pulverized. On many soils the magnesia can be omitted altogether, so that if it were made up of 500 pounds of ground bone, 300 pounds of superphosphate, 400 pounds of muriate potash, 800 pounds of gypsum or loam, it would make a first class fertilizer, though not corresponding fully to the ashes.

In using this it will be borne in mind that the bone supplies phosphoric acid and lime. The potash salts give the potash needed, and the superphosphate affords lime, phosphoric acid, sulphuric acid and a small percentage of nitrogen. This last element is a very valuable one which ashes do not afford at all. If gypsum is used, it also supplies lime and sulphuric acid, for it is of itself simply sulphate of lime. Sulphate of magnesia gives also sulphuric acid and magnesia. A fertilizer thus made up has proved of great value on meadows, pastures, sown grain and hoed crops of all kinds. It is permanent in its influence, as the bone dissolves slowly, while the mechanical action unlocks latent elements of plant food and makes them available for immediate use.

COLOR may be but skin deep, but it pays to note the color in the apples raised for market.

### Good Advice.

It does not pay to slight any kind of farm work. Last year I bought a farm which was a striking example of what slipshod methods will do. About thirty-five acres of the piece were cleared up and in meadow. And such meadow as it was! I don't think there had ever been a stone removed. Year after year its owner had plowed, harrowed and mowed over cradle knolls and stones without number. Just think what an amount of human and animal strength were wasted in doing work under such disadvantages. I picked up and drew off enormous piles of stone last fall and this spring I have been at it again. I also broke up a few acres at one end. It was exceedingly hard work for man and team, but I tried to make a clean job of it. As I went along, where the plow threw out a stone I threw them into a heap and finally drew them off before planting. When I plow this land again it will be a much easier task. In places I ran against flat stones three feet across. Quite a load of these I drew for a walk from the house to the milk room. There never had been a barn on the place during its former occupancy. The hay had always been stacked. Enough had been wasted undoubtedly to build a good barn. This year I am putting up a barn which will hold all the place will produce. I expect to get good returns for being thorough in straightening up this much-neglected piece of land.—*Selected.*

### An Increased Call for Farms.

It is a fact that the "hard times" experienced in town and city have had the effect to turn an increased measure of attention to the farm and the advantages it affords for a home. Within a limited circle of observation in this central part of the state a considerable number of farms have been recently purchased by parties from the cities out of employment, and therefore out of the opportunity to earn their daily bread. If we must have periodical hard times, there is then a measure of good resulting from such a condition of the country's industries, in that people in the always overcrowded cities are led to see that the farm always furnishes employment to the owner and to his family, and liberally supplies the home with the comforts and necessities of life. There may not be so much money handled from their labor on the farm, but in many cases that labor judiciously expended on the land will bring more for the outlay in other and necessary forms than the money earnings in the city can purchase. This drift, then, from the city to better and happier homes on the farms should be all who may wish to come, and labor in plenty for all in want of work.—*Maine Farmer.*

encouraged. There never was, and probably never will be, a better time to make the change than now. Farms, wherever found for sale, are surprisingly low in value. There is room for

### Handling the Hay Crop.

The wise farmer will get all tools used in haying in perfect repair long before the time to begin. On farms adapted to their use tedders and hay loaders are practical. River bottoms and level fields that are easy to haul over and yield heavy crops may require the hay tedder, and the loader saves lifting. The hay loader will keep two men busy loading, as it takes it from the windrow. With mower, horse rake loader and some good device for unloading by horse power, a farmer can handle a large crop of hay without going outside of his own family for help. Before buying a hay loader, Rural New Yorker, authority for the following, advises that the farmer remember that he will need to cut a good deal of grass to make such a tool pay interest on its cost. Not only that, but he must get one that will do the best work on his farm. The very fact that different farms and farmers require differences in tools explains why there are differences in hay loaders just as there are in plows, harrows or cultivators. Each one is designed to do a special work. There are two chief principles operated in hay loaders. In one the hay is pulled on by a system of rakes, which works much like the old hand rake of earlier haymaking. You might compare this to the principle of raking the hand toward you with the fingers down. The other principle is the reverse of this.

The mower should be free from rigging and have a tilter to catch lodged grass. The later makes have long cutter bars, some six feet. Four and a half to five will give better satisfaction on stony or rolling land. They draw easier, and the team can walk faster. The rake should be a self dump, so that a boy or girl can easily do the raking. It should not tear up stones or sod or roll up the hay, but push it together.

The double harpoon fork is light to handle, durable, cheap and efficient. The whole outfit, including ropes, pulleys and hooks, can be purchased for $5 or $6. Hay cars and track are good, but one can hang the fork so that good work can be done without them. Sometimes, especially in the older, lower barns and large mows, better work may be done, as they can be fixed to drop the hay in different parts of the barn, while the track is stationary. To hang a fork tie a small pulley to the top of the fork. Fasten a pulley to the foot of a post on the floor opposite the side where hay is to be stored. Another, directly above this, is fastened to a rafter or crossbeam. The other is fastened as far back in the mow and as high as possible to a rafter. If the mow is large, this pulley can be shifted to either side as the mow fills. Run the rope through the pulley at the foot of the post, then straight up to the second, then down to and through the one on the fork, then to the pulley in the mow and back to the fork to which it is tied. This arrangement requires no boards nailed to the side of the mow and takes up all the fork can be made to hold without binding against the sides.

MANY people fail with poultry because of neglect. Fowls respond to good treatment as readily as the dairy cow or other animals.

### How to Make Good Hay.

There is a vast difference in the quality of hay. Some of it is brown and brittle, full of dust and chaff. Such hay is possessed of very little nutriment. Its fault lies in the fact that it was too ripe when it was cut. Especially is this true of timothy hay. Many farmers think it will do no harm to let the timothy stand until after harvest before cutting. The wheat harvest crowds the haying pretty close some years, and something is apt to get overripe. An extra effort should be made even by hiring extra men to get the grass secured while it is yet green. After harvest, hay is not usually very salable. It is sun-dried and bleached until nearly all the goodness is gone. A fancied saving in help at haying time often results in a much greater loss in value of the crop. "Penny wise and pound foolish" applies to this case. Secure the crop in good season. It will be worth more either to feed or to sell by so doing. Clover hay should be cut as soon as it is nicely in blossom. It takes longer to dry it sufficiently, but it is much better. A quantity of hay caps made of unbleached sheeting will pay for themselves in a single rainstorm ofttimes when the hay is so easily colored by becoming wet. Colored hay never sells for as much as that which is bright. Sheeting a yard and a quarter wide will do very well for the caps. Tear in squares, hem on the sewing machine, or not, as one pleases. Tie a peg to each corner to fasten over the hay cocks by thrusting them into the hay. Well cared for they will last for years.—*New York Tribune.*

### Value in Good Horses.

With the low ruling prices for horses, there has been no time when a really fine horse or a pair would not command a good price. The market has been overstocked with a class of light-weight, inferior animals that have been bred with no intelligent idea, with insufficient weight for draft and of no use for road purposes. At a recent sale in England good driving horses sold briskly at $650 each; good hunters and saddle horses sold for $1000 each, while fine pairs of well-matched carriage horses sold for $1,000 to $1,500 a pair. England has plenty of horses and uses electricity, yet there is a demand for good horses that are bred for special purposes. The low prices in American markets are going to be of great benefit to good breeders, for it will drive the haphazard class of breeders out of the business and those who continue to raise colts from well-bred, selected stock, of special type for a special purpose, will realize good prices for them. There is no demand for a general-purpose horse and those who continue to breed mongrel stock will find no money in the business. With the general improvement in roads, there will be a steady demand for good roadsters, but they must be bred for the special quality wanted by buyers, otherwise they will not bring the value that purchasers are willing to pay. While holding some horse-breeding farmers' institutes two years ago, I received applications from Boston buyers, also from other cities, if finely-matched pairs of road horses were brought out, to report, as they would pay from $1,500 to $2,000 for pairs that suited, under the following conditions: Alike in color, weight 1,100 pounds, close to sixteen hands high and able to road in three minutes when desired. In a large number of horses brought out, not a pair could be found that came up to the demand. Yet the money was on the ground with which to pay for them. —*N. E. Homestead.*

### New Blood in Poultry.

If we would keep up the vigor and fecundity of our flocks of poultry, we must infuse new blood into them. Inbreeding is very good for every one to a limited extent, but inbreeding is more for the fancier than for the practical poulterer. Inbreeding produces fine exhibition birds, where feathers, size and shape are nearly all alike—almost perfect from the judge's point of view. As a rule, these true-to-a-feather birds show a wonderful amount of stupidity and lack of vitality at the exhibitions. They are generally slow to move, slow to lay and slow to develop. While inbreeding has its purpose, it certainly cannot be recommended to the practical poultry raiser. We need inbred fowls to be crossed with other birds. In other words, new blood must be constantly introduced into the flock if profit is to be gained thereby. The fowls that we want for our use must show activity, strength and vitality. Every move of their body, legs and head should indicate alertness, power and quickness. How different from the stupid, inactive birds of the exhibitions that have been inbred to death. There is probably a point beyond which even the fancier would not care to go in close inbreeding. His own flocks would then deteriorate so in size, quality and animation that he would gain nothing by it. But, as a general rule, the average fancier inbreeds too close to make the birds of use to the practical poulterer except as a strain to introduce among the more practical birds of the farmyard. In order to have plenty of fresh eggs, fresh blood should be introduced into the flocks every year. Get as good blood as possible to introduce, but even a mongrel bird will help the high-bred birds better than none at all. In fact, sometimes the mongrel bird will bring points of hardiness and endurance into the flocks that cannot be obtained from those that have been so carefully reared for generations past. The rooster should be obtained from good stock, and very often of a different breed from the hens, and if a new one is obtained each season enough fresh blood will be brought into the flock to make the standard of the birds high. There is little chance of deterioration, and more eggs will be obtained than from a flock that has been closely inbred for years. The very actions of the birds will tell whether fresh blood is needed. If the roosters show attention to the hens, courting them in every way possible and giving them choice bits, it is safe to say they have sufficient vigor and vitality. But if the rooster is a dullard and laggard, not following in the chase after insects and worms, and the hens are quiet and disinclined to exercise much, it is about time to seek new blood.—*American Cultivator.*

### Commercial Fertilizers.

Dr. J. B. Lawes, the great English agriculturist authority, in a communication to Rural New Yorker, expresses his opinion, first, that phosphoric acid rendered soluble by the action of sulphuric acid is of the same commercial value whatever the source; that, second, it is doubtful whether the phosphoric acid in bones ought to be rendered soluble by acid. If finely ground, it is sufficiently soluble for all practical purposes, as in the decay of the animal portion the phosphoric acid becomes soluble; that, third, contrary to our (station) valuation, he places a higher value upon nitrogen in the form of nitric acid (nitrate of soda) than that in ammonia salts. Practically Dr. Lawes gets a larger yield of produce from a given weight of nitrogen as nitric acid than from the nitrogen of sulphate of ammonia.

Finally Dr. Lawes tells us that when sulphate of ammonia is placed in the land the sulphuric acid combines with the lime, and a good deal of lime is washed out of the land, so much so that when he has used large quantities of amomnia salts in his grass experiments he has been compelled to replace the lime by an application of lime and chalk.

### Clipped and Condensed.

HAVE you cut out all the cases of black knot in the plum trees and cherry trees? This is a trouble that means extermination if neglected.

THE garden is the index of the farmer's power to care for the details of his business. A neglected garden gives away the habits of order in his business.

THE growth of limb, trunk, vine or bush is the abstraction of more potash from the soil than of any other important mineral. Add this material to the fruit garden.

WHEN sheep are seen running with head close to the ground and stamping, the fly which produces the grub in the head is near. Put some pine tar on the sheep's nose.

THE butter-maker who fails to put his butter on the market in a neat, clean and attractive form has yet to learn one of the most important lessons in successful dairying.

To drive away squash bugs and other small, delicate insect pests, wet a small piece of cloth with kerosene or use the cloth used to wipe the lamps by laying about the infested plants.

PHOSPHATE OF LIME is now a product of iron. The phosphoric acid is set free from the iron and combined with lime, being in a fine powder when shipped for use on the farm.

DO not neglect the chores, even if other work seems to demand your whole attention. Study to save both steps and time in doing chores, and do them in the same order every day.

THE Massachusetts experiment station made an experiment in feeding skim-milk to calves and pigs. The result showed that it was equivalent to selling milk at thirty-five cents a hundred.

HOGS will eat the spoiled corn, wheat, oats or potatoes. Nothing else will. Herein is the hog the best of farm animals. When feeding inferior grain or vegetables, be sure to feed plenty and some sound food at the same time.

MAKE up a list of the bolts, nuts, screws and small tools you are in constant need of, and buy them in one lot, and put each in a well-arranged series of pigeon holes and keep them there. The saving will pay a greater interest than the savings bank account.

IT is not too late to amend the mistaken policy of withholding manure from the garden to enrich the farm. On the former the most labor is put and the most manure needed. Try chemicals in the garden; they act quickly and do not add weeds to the lot.

SHEEP and hogs are good in orchards—hogs preferable to sheep, because they root the ground over and prepare it for an application of fertilizer. Neither class of stock is sufficient for the full amelioration of the soil to bring the orchard to its best productive capacity.

ADVANCED practices in cattle feeding are making it possible to turn off stock thoroughly finished at a much earlier age than was once the case. If you have not caught up with the methods that will enable you to work along this line, better begin to study them at once.

MOST farmers have learned the value of persistent labor; many more have yet to grasp the importance of systematic work. These latter often wonder why the city man who takes to farming frequently makes a financial success, backed by no practical experience. Usually it is because his school, college or business training has taught him discipline of mind.



SMOKE stacks of ocean steamers are much larger than is generally supposed. They range from fourteen to eighteen feet in diameter.

THE 132,856 craters which have been discovered on the moon are supposed to have been caused by a bombardment of aerolites.



# CURRENT LITERATURE.

### The July Magazines.

IN the mountains or at the seashore one needs something suggestive for discussion to while away the evenings over a cigar quite as much as one needs light literature, and the July *Arena* is just the the thing to slip into one's satchel at this season, for it is brimful of independent views of all the questions in the popular mind at this time. The *Arena* is always suggestive, and its literary excellence and independence makes it the most interesting as well as the most valuable review published on either side of the Atlantic.

THE public has learned Lowell's estimate of Mr. Howells through the delightful volumes of letters edited by the friend of both, Professor Charles Eliot Norton. Mr. Howell's first impressions of Lowell are given in his delightful "First Visit to New England," now being published in *Harper's Magazine.* In the July number the novelist describes a dinner at Parker's in Boston, at which Lowell's guests were Dr. Holmes, James T. Fields, and the future chronicler of the event. There are six good short stories, although no announcement is made that this is a fiction number.

ROMANCE, the monthly magazine of complete stories, which has won so enviable a reputation, is brought within reach of a far larger public than heretofore by the reduction of its price from 25 to 10 cents. Everybody loves good stories, but they are notoriously hard to find. The editor of *Romance* knows how to find them, and people who have not bought it because of its high price can now get for a dime the best monthly collection of stories ever offered. Under the same management as heretofore, the new ten cent *Romance* is issued by Romance Publishing Company, Clinton Hall, Astor Place, New York. Subscriptions $1 a year.

IN the *Popular Science Monthly* for July, "A Colonial Weather Service" is described by Alexander McAdie of the weather bureau in Washington. Two full-page pictures illustrating modern meteorological methods accompany the text. The story of the introduction of inoculation for smallpox into England is told by Mrs. H. M. Plunkett, under the title "Lady Mary Wortley Montagu and Modern Bacteriology." Jenner's modification of the operation is also described. It is significant that Lady Montagu accomplished her great service to humanity in spite of many obstacles, at a time when women pressed fewer "rights" than now, and without the aid of "the ballot."

THE July number of the *North American Review* will be found equal to any of those which have preceded it, both in the variety and timeliness of its contents and in the celebrity and authoritative character of its contributors. The opening article is by ex-Speaker Reed, who discusses "The Present Administration of National Affairs" in a manner which is certain to attract considerable attention. The political relations of "France and England in Egypt" are treated in a trenchant paper by Madame Adam. The Notes and Comments include three very readable papers—"The Prospects of Mexico," by Walter M. O'Dwyer; "The Dangers of Vaccination," by William B. Hidden, M. D.; and "Is Country Life Lonely?" by C. H. Crandall.

THE *Review of Reviews* for July finds cause for rejoicing in the reports which it is receiving from all parts of the country concerning the steady diminution in the numbers of unemployed. It will be remembered that the *Review* canvassed the situation thoroughly in the early winter, and placed before its readers returns from nearly all the large cities showing the number of men out of work and the measures inaugurated for their relief. Supplementary information has been received which enables the *Review* to state that almost everywhere such relief work has ceased because the necessity for it has disappeared. The editor comments on this improved condition of affairs and adds some interesting reflections on the passing of Coxeyism. In this connection the status of the populist party in congress is discussed.

### One Day in Bed.

About once a month I noticed that my two strong, active children grew what was called "cross." I determined to watch for the cause, and discovered that even the infant boy can only stand a certain amount of exercise without becoming "worn out." When, therefore, at night I found one or the other particularly "cranky," I would say to myself: "It is time this child was rested. To-morrow must be a 'bed day.'" The children understood that this was in nowise punishment, but a simple sanitary measure. Playthings there were in plenty, but no getting out of bed. How that room did look sometimes! Cut papers, toys, everything in every direction, but I knew that the little legs and body were obtaining a much-needed rest, and what did a little more clutter more or less amount to? The next day they would be as bright and "chipper" as young robins. I firmly believe that by this plan I have warded off many a little attack of actual illness by building up the physical strength so that sickness could not take hold. This plan I believe to be original with me, but I am not only willing to give it away to all mothers, but to send as well hearty good wishes with it. — *Housekeepers' Weekly.*

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